Capstone as Project-Led Problem Based Learning: Theory and Application in Personal Financial Planning

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Abstract

The Personal Financial Planning Capstone course can be a complex and daunting learning experience for both students and instructors. Resources exist to guide instructors through the content of Capstone (the what); however, more consideration needs to be given to the how of Capstone course delivery. This paper explores Capstone through the lens of Project-Led Problem Based Learning (Pj-PBL), offering examples of course design, application, and assessment. Research and discussion are needed to optimize Capstone course delivery as the final class that prepares students for a rigorous profession.

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Recommended Citation

Asebedo, S. & Gramse, B. (2025). Capstone as Project-Led Problem Based Learning: Theory and Application in Personal Finance Planning. *Financial Services Review, 33*(4), 12-36.

Introduction

Completing a Capstone class as a student is daunting, given the breadth and depth of the material necessary to facilitate mastery and synthesis of the CFP Exam topic areas. Teaching a Capstone class is similarly formidable for the instructor responsible for guiding students through a comprehensive case in a way that generates deep learning while building students' confidence in and connection to the profession they are about to join. Fortunately, educators have developed textbooks that guide students through constructing a comprehensive financial planning case from start to finish. For example, Grable et al. (2022) provided a client case example and illustrated how to work through all financial planning topic areas according to the CFP Board's financial planning process. The resources available today are excellent in defining the components of comprehensive financial planning and identifying how to construct this plan to meet the CFP Board's requirements. Furthermore, the software, teaching deliverables, video, and Excel resources that accompany textbooks significantly equip instructors with the content necessary for success. Given these instructional resources, educators no longer need to define the content required for course delivery *(*the *what)*. Instead, educators face a fundamental and lingering challenge: *how* to deliver Capstone within a course structure that achieves the CFP Board's learning objectives in a way that facilitates mastery and professional proficiency while retaining students' motivation for the personal financial planning profession and confidence in

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their skills. Additionally, a Capstone course structure should generate an optimal instructor experience, resulting in a sense of meaning, mentorship success, and accomplishment while mitigating burnout risk.

Researchers can address the scientific and practical challenge of *how* to effectively deliver the CFP Board's Capstone course through research that identifies evidence-based methods within the context of student and instructor outcomes. Before researchers can achieve this result, we must first consider a theoretical framework to guide study design, empirical evaluation, and to synthesize the results within a cohesive theory-based map that facilitates practical implementation and opens future research channels. This paper takes the first step in addressing this gap by exploring Project-Led Problem-Based Learning (Pj-PBL) as a theoretical paradigm for the CFP Board's Capstone course. Capstone has synergy with Pj-PBL's pedagogy, given its project-based case approach situated within a real-world professional context to solve a client's comprehensive financial plan ("the problem") using disciplinary knowledge, lending an applicable foundation for exploring a theoretical perspective to guide an instructional approach. Therefore, this paper will address this primary research question: *What are the potential advantages of using Project-Led Problem Based Learning (Pj-PBL) as a theoretical foundation for CFP Board Capstone courses?* We extend our exploration to research evaluation as a necessary next step to move theory into practical application through this second research question: *How can researchers evaluate CFP Board Capstone course effectiveness in a structured, researchable way?* When viewing Capstone through the Pj-PBL lens, we can begin to identify the components and methods of primary data collection studies that produce the evidence needed to (a) evaluate Pj-PBL as a theory applied to Capstone, identify theoretical gaps, uncover other potential overarching theories, or develop new theories; (b) identify instructional methodologies and best practices to guide Capstone course delivery; and (c) understand how course-design attributes shape student and instructor outcomes.

We address these research questions by conducting a literature review, theoretically mapping Pj-PBL concepts with Capstone, proposing a research study design framework, and providing practice-based application examples with case studies. This paper makes a unique contribution to the financial planning pedagogical literature, as it expands beyond a content or instructional course guide to introduce a new paradigm to explore instructional design evaluation frameworks across various Capstone implementation methods. This new paradigm has the potential to strengthen practice and education collaboration with a resource that the financial planning profession currently lacks.

This research should be viewed as an early-stage contribution in a space where very little empirical or pedagogical research currently exists. The CFP Capstone course is required as part of the CFP Board's education requirement, yet there is no consensus on best practices for structuring or evaluating it. Our goal is not to provide definitive answers, but to initiate scholarly discussions and identify directions for future study. By mapping Capstone through the Pj-PBL theoretical lens, we hope to lay a foundation that invites continued discussion and development across programs.

Literature Review

Financial Planning Pedagogy

Financial planning pedagogy has significant importance as it strives to provide students with the necessary skills and knowledge to become competent and well-rounded financial planners. The existing literature demonstrates the emergence of creative teaching approaches and emphasizes the requirement for enhancing financial education among students. Goetz et al. (2005) discussed the inadequacies of the conventional approach to financial planning education, as it results in students facing a prolonged and costly journey toward entering the professional realm. Graduating from university programs without prior financial planning experience is common among students, who often lack awareness of the practical aspects of the financial planning business (Goetz et al., 2005). Goetz et al. (2005) suggested incorporating case studies, simulations, and financial planning software to enhance the

financial planning curriculum. Most recently, Heymann et al. (2025) provided the first aggregate survey of CFP Board-registered program directors, identifying curriculum design, experiential learning, practitioner involvement, and institutional support as critical components of financial planning pedagogy. Building on this, Zhang (in press) examined CFP Board-registered programs within AACSB-accredited business schools and found significant differences in delivery format, program type, and institutional challenges, suggesting that program context strongly shapes pedagogy.

Subsequent research uncovers the limitations inherent in the traditional method of financial planning education. West et al. (2019) posited that educational institutions should focus on enhancing the development of abilities such as interpersonal communication, negotiation, marketing, and teamwork. The demand for these skills is rising among students and employers, indicating a greater appreciation for their significance (West et al., 2019). Moreover, a survey conducted by Weisz (2000) of students and employers engaged in an internship program showed that employers prioritized communication, initiative, and teamwork skills. In contrast, students acknowledged communication and initiative as their weakest competencies (Weisz, 2000). This shift highlights the importance of individuals possessing both technical expertise and strong interpersonal competencies to succeed in the workplace.

The skills employers value in graduates extend beyond mere theoretical knowledge, emphasizing the practical application of theory in real-world work scenarios (Teale, 2013). Applying theory in practical settings enables graduates to effectively solve problems, innovate, and adapt to dynamic work environments. By showcasing practical skills, students demonstrate their ability to make meaningful contributions to organizational goals and navigate challenges with competence and confidence. It is insufficient to possess knowledge about financial planning; one must actively apply this knowledge in practice (Brau et al., 2015; Jacob, 2016). Including real-life experiences within the classroom setting and providing students with the opportunity to gain firsthand knowledge of the professional world are integral aspects of a personal financial planning course (Martin, 2007).

Capstone Course

To address these limitations and increase the inclusion of practical financial planning experience, the CFP Board introduced a Capstone course requirement for all students who enroll in a program after January 1, 2012. The CFP Board (n.d.) defined the Capstone course as "a comprehensive financial plan development course created to enhance your knowledge, skills, and abilities" (para. 1). Typically, students enroll in the Capstone course as the final course in their financial planning curriculum or alongside other courses during their last term of study (Martin, 2007). The Capstone course is designed to integrate and apply the knowledge and skills acquired throughout the program, culminating in a student's academic journey in financial planning. The Capstone course does not fall under the category of an education course in the traditional sense, as it does not provide predefined learning materials. Instead, it aims to assess candidates' proficiency in technical skills and ability to analyze and communicate findings across the curriculum through an oral and written report based on a financial planning case study (Jackling & Sullivan, 2007).

The Capstone course aims to prepare students with technical financial planning knowledge and the essential skills to integrate, apply, and communicate it effectively to their clients (Grable et al., 2022). The CFP Board (2019) outlines a 7-step financial planning process in the development of a financial plan:

1. Understand the Client's Personal and Financial Circumstances
2. Identify and Select Goals
3. Analyze the Client's Current Course of Action and Potential Alternative Course(s) of Action
4. Develop the Financial Planning Recommendation(s)
5. Present the Financial Planning Recommendation(s)

6. Implement the Financial Planning Recommendation(s)
7. Monitor Progress and Update

The financial planning process detailed in *The Fundamentals of Writing a Financial Plan* textbook by Grable et al. (2022) illustrates the essential steps to begin and finalize a financial plan, emphasizing a thorough and comprehensive approach.

When developing a financial planning course, it is essential to foster critical thinking and decision-making skills among students about the financial planning process (Martin, 2007). In the Capstone course, various pedagogical instruments can be employed to facilitate students' learning of the practical aspects of a financial planning practice. In a survey conducted among professors, the question of which pedagogical tool should be incorporated into a finance course yielded a prevailing response - using a case study (Thapa & Chan, 2013). Utilizing a case study in the Capstone course offers students a valuable opportunity to delve into a scenario that emulates the dynamics of a typical financial planner-client relationship.

Solis (2018) conducted a study exploring innovative instructional strategies, including collaboration and the integration of multimedia. Collaboration is a powerful instructional strategy promoting active engagement, critical thinking, and student social interaction. By working together, learners can develop essential skills, including communication, teamwork, and problem-solving. Including multimedia in the classroom can enhance students' learning experiences by making them more captivating, efficient, and tailored to individual needs.

Another pedagogical approach involves allowing students to engage in peer financial planning. In a study by Goetz et al. (2011), researchers followed a program in which students provided financial planning services to fellow students and faculty. Implementing this peer financial planning program enabled students to acquire essential practical skills and apply their theoretical knowledge to real-world situations (Goetz et al., 2011). Maurer and Lee (2011) conducted a similar study comparing the efficacy of peer financial counseling with a semester-long course. Their findings indicated that peer financial counseling could produce comparable levels of financial literacy improvement in much smaller periods.

Financial planning pedagogy is evolving to incorporate innovative, hands-on teaching methods that support the needs of various student populations. There is a consensus on the importance of peer-based learning, the use of case studies and mock sessions, and adapting the curriculum to reflect current realities in financial planning. However, gaps remain in the availability of effective pedagogical strategies for Capstone classes and the integration of financial planning education into broader academic programs. In conclusion, financial planning Capstone courses are crucial for preparing students for the professional world by providing opportunities to apply their knowledge in complex, real-world scenarios. These courses are designed to be integrative, reflecting the student's entire educational financial planning journey.

Theory

Project-Based Learning (PjBL)

Project-based learning (PjBL) reflects a student-centered approach to the education environment that fosters learning by *doing* and *applying ideas* based on real-world activities similar to those in the professional working environment associated with the educational curriculum (Du & Han, 2016; Krajcik & Blumenfeld, 2014). In PjBL, students take an active and engaged approach to learning through problem-solving and constructing their understanding through a project with a meaningful and relevant problem (Krajcik & Blumenfeld, 2014). According to Krajcik and Blumenfeld (2014), the concept of PjBL rests upon a body of learning science theory that indicates students learn more deeply with an enhanced personal connection and investment with the material generated through active inquiry, incorporating (a) active construction, (b) situated learning, (c) social interactions, and (d) cognitive tools. Guo et al. (2020) articulated the overarching purpose and composition of PjBL well in this summary: “This creation process requires learners to work together to find solutions to authentic problems in the process of

knowledge integration, application, and construction. Instructors and community members (e.g., clients), normally as facilitators, provide feedback and support for learners to assist their learning process" (p. 2). Guo et al. (2020) conducted a systematic literature review of 76 empirical studies that investigated student measures and outcomes (cognitive, affective, behavioral, and artifact performance) within a PjBL higher education environment. Guo et al. (2020) found preliminary evidence for a positive impact of PjBL on students' content knowledge, learning strategies, skills, motivation, and product quality; however, they noted that more research is needed to assess the effectiveness of the PjBL structure.

PjBL is grounded in several learning theories. First, constructivism is central to PjBL as it positions students at the center of the learning process, where they construct learning and meaning through individual or social interactions (Narayan et al., 2013). Constructivism posits that learners contribute their prior knowledge and experiences to the learning process through an active interaction rather than a passive relay of information from the instructor to the learner. More specifically, PjBL incorporates *social* constructivism to recognize the influence of society and social interactions on the learning process.

Second, cognitivism informs PjBL as a project is positioned atop an underlying body of knowledge that the learner has acquired over time and must now retrieve and place into working memory to invoke planning in response to the project as an external stimulus, construct solutions from this knowledge, and expand their existing knowledge framework to generate new strategies. These active internal mental information processing activities, combined with the learner's experiences and emotions, are key elements of cognitivism (Bruning et al., 2011; Paciotti, 2013). Under the cognitivism umbrella, Bandura's (1986) social cognitive theory reiterates the role of the social environment in influencing cognitive processing.

In social cognitive theory, learning extends beyond internal cognitive processes and reactions to external stimuli to include an interactive engagement with the social context that generates the learning environment. Furthermore, social cognitive theory emphasizes human agency, where the learner's internal motivation, decision-making, actions, and outcomes are causal inputs to the learning process and environment. Self-efficacy is a central factor contributing to this bidirectional system. Self-efficacy "refers to the beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). In other words, self-efficacy embodies the belief that one's actions will lead to success and that failures are temporary obstacles. Self-efficacy influences various aspects of personal growth and progress, including goal setting, resilience in the face of adversity, thought patterns, stress levels, and the risk of depression. Further, physiological and affective states, enactive mastery experience (past successes), vicarious experiences, and verbal persuasion combine to shape self-efficacy. Through the lens of Capstone, social cognitive theory and self-efficacy enhance the action-oriented learner, emphasizing the importance of self-efficacy in advancing through a significant project. Self-efficacy also provides deeper insight into the elements of the social learning environment that shape self-efficacy and learning outcomes, such as providing opportunities to experience successes (enactive mastery experiences) and demonstrating how others have succeeded in the past (vicarious experiences).

Third, situated cognition theory brings a real-life environment to PjPL by positing that students develop knowledge within a situated sociocultural context that is inseparable from the learning process (Jenlink, 2013). Through situated cognition, students set individual goals in relation to themselves and others, learn to think like professionals, and experience how to solve real-world problems through a guided growth trajectory, moving them from novice to independent expert (Jenlink, 2013). Connection to practice is critical for situated cognition to provide students with opportunities to participate and engage with community experts, observing how they solve daily problems within a situated context and experiencing real-world problem-solving firsthand. The importance of *how* Capstone is facilitated becomes clear through the

lens of situated cognition theory, as it transforms a comprehensive curriculum academic exercise into a real-world, applied training model for professional practice.

Fourth, problem-based learning theory has high synergy with PjBL, and experts have proposed integrating them into a hybrid model of project-led problem-based learning (Pj-PBL), emphasizing problem-solving within a real-world project to facilitate skill acquisition and produce tangible, work-related artifacts or services (Hanney & Savin-Baden, 2013). Problem-based learning places the student at the center of the learning process, with the teacher assuming a facilitator role to solve ill-structured and authentic problems (Fredrickson et al., 2013). Hanney and Savin-Baden (2013) noted that while there are various approaches to problem-based learning, a common thread across all models is that the problem reflects professional practice or a real-world situation within the context of disciplinary knowledge. Furthermore, problem-based learning often incorporates small-group work, thereby also contributing a social element to the learning process. Hanney and Savin-Baden (2013) noted that the amount of guidance and scaffolding within problem-based learning can vary greatly, but that the level of structure needed depends on the learner's prior experience with problem-based learning. Thus, those with minimal previous experience require a high level of support structure, while those with extensive experience require very little.

Project-Led Problem-Based Learning (Pj-PBL)

Given the synergy of problem- and project-based learning, we employ the theoretical background of project-based learning (Krajcik & Blumenfeld, 2014) and the integrated approach of project-led problem-based learning (Pj-PBL), as proposed by Hanney and Savin-Baden (2013), as the theoretical map guiding Capstone. Based on this theoretical foundation, Pj-PBL typically contains these components:

1. A driving question or problem that students actively engage with to generate (i.e., *construct)* understanding by producing ideas and solutions to this real-world and non-linear problem.
2. Situated inquiry frames this question or problem within an authentic and real-world and work-related context, reflecting the professional environment and disciplinary knowledge to facilitate the student's connection with the value and meaning of the tasks and activities asked of them.
3. Collaborative activities (students, teachers, professionals, and community members) facilitate social interaction to share, use, and debate ideas within a learning community.
4. Scaffolding provides the structure and tools necessary for students to stretch beyond their current capacity. Within this scaffolding, *cognitive tools and learning technologies* (e.g., software, equipment) extend learning to tasks that would not otherwise be possible, while the project and course structure guide the learner through problem solving, depending on their prior experience with problem based learning.
5. Learning artifacts represent students' constructed knowledge (e.g., models, reports, recordings, programs).

Pj-PBL Applied to Capstone

Capstone is a quintessential example of Pj-BL in higher education. Students engage in active problem-solving for a personal financial planning client case where they must use their acquired knowledge across multiple topic areas to generate new ideas and construct solutions that improve the client's financial health and capability to achieve their goals (a driving question or problem). This problem-solving is situated in an authentic and real-world context, as the student must solve the comprehensive client case by using real-world laws, regulations, and financial resources (situated inquiry). Capstone is the keystone class connecting education with the professional environment. Problem-solving with a comprehensive client case reflects the core focus of financial planning work, thereby giving value and meaning to the assignments, tasks, and activities asked of students (situated inquiry). The instructor can also customize the various activities within a Capstone class to reflect professional activities, such as facilitating a client

meeting and presenting financial planning concepts.

The Capstone class can easily incorporate collaborative work with students, teachers, and professionals from the financial planning community (collaborative activities). For example, students can work in groups to discuss, collaborate, and negotiate client recommendations, much like a professional environment where a team works together for the benefit of the client. Experienced financial planners can serve as a valuable resource for product quotes, provide feedback on planning strategies, or even act as a live client. Additionally, by structuring the grading process so that students complete portions of the plan and submit their work periodically, the instructor can offer feedback and promote discussion of ideas along the way, thereby deepening learning and expanding their thought repertoire. This student-centered course structure facilitates learning and provides essential scaffolding as students navigate problem-solving within a setting likely new to them. The extent of problem-based learning incorporated into the underlying curriculum will be a significant driver of the scaffolding and guidance needed within Capstone to make problem-based learning effective. Capstone is an excellent class for incorporating cognitive tools and learning technologies to facilitate learning beyond the textbook (scaffolding with cognitive tools and learning technologies). Using software enables more complex analysis and provides access to sophisticated statistical tools to assess client outcomes. Last, students can present several learning artifacts resulting from a Capstone course, including a written comprehensive plan, software reports, presentations, peer feedback, and facilitating client interactions either live or in video form (learning artifacts).

As described, Capstone naturally lends itself to a Pj-PBL approach. This theoretical connection presents several potential advantages (Research Question 1). Framing Capstone within a Pj-PBL paradigm helps the instructor and student gain a clear picture of the goals, purpose, and process of this class. This perspective can potentially mitigate stress and anxiety often accompanying a large project from both the instructor's and learner's perspectives. Pj-PBL creates a theoretical foundation from which to develop a syllabus and schedule, create a supportive and rigorous course structure, choose which technologies to incorporate, consider how to develop collaborative opportunities both internally (teacher and student) and externally (professionals), and determine optimal assessment tools (e.g., written plan, client meeting recording, etc.).

Evidence-Based Learning Principles

With Pj-PBL as the foundational theory guiding the teaching pedagogy for Capstone, we can then consider additional learning-based principles within the course framework. These principles, as outlined by Halpern and Hakel (2003), facilitate long-term retention and transfer to the professional environment. They are particularly salient for Capstone as a final course at the top of a layered curriculum intended to synthesize a wide array of content: (a) practice at retrieval, (b) varying the conditions under which learning takes place, (c) alternate formats (present and re-present), (d) prior knowledge and experience, (e) learning as influenced by the learner (and instructor), (f) experience alone is a poor teacher (the need for cases, even for experienced practitioners), (g) understanding as an interpretive process with students as active participants, (h) the act of remembering influences future recall, (i) less is more, and (j) what learners *do* determines what and how much is learned, remembered, and recalled.

Practice at Retrieval

Practice at retrieval involves repeatedly recalling prior learned information under new conditions and circumstances over time to answer new questions and solve new problems, thereby effectively transferring the prior information to a new context (Halpern & Hakel, 2003). Halpern and Hakel (2003) noted that practice at retrieval should be facilitated with minimal cues, allowing the learner to recall and retrieve information independently as much as possible, thereby becoming fluent with the acquired knowledge. Capstone naturally facilitates practice at retrieval because it provides a new frame (the client case) through which the student must recall and apply the previously learned financial planning

information. The structure of Capstone within the semester can also facilitate retrieval by creating multiple submission opportunities, where learners can submit their work, receive feedback, and revise it for the client's current situation, and then again for the recommendations. Group work and live discussions also facilitate this process. Practice at retrieval during the final Capstone class is essential for the long-term and fluent transfer of financial planning information and skills into the professional work environment.

Varying the Conditions

Halpern and Hakel (2003) outlined the benefits of varying learning conditions. While more challenging, this approach generates more retrieval cues than a learning environment where the learning conditions are consistent or limited. As a Pj-PBL class, Capstone can readily vary the learning conditions in various ways, such as constructing the written plan, using software, working in teams, incorporating professionals into the learning environment, developing presentations, and facilitating client meetings. The main idea is to integrate different types of problems and contexts (e.g., writing the plan and then facilitating a client meeting with the plan) within the course, so that the information can be recalled and applied in various ways. Using software is an excellent way to vary learning conditions, as software programs require different data entry structures and produce new report layouts that students may not be accustomed to seeing in textbooks.

Alternate Formats

Incorporating alternate formats entails asking learners to process information from one format to another within the learning environment (Halpern & Hakel, 2003). For example, the instructor could ask the learner to present written information verbally or visually. Capstone can incorporate this feature by asking students to write their financial plan, utilize visual tools within the plan (e.g., graphs and charts generated by software or Excel), and present that plan to a client through an interactive client meeting.

Prior Knowledge and Experience

Learning outcomes reflect the learner's existing knowledge, experience, and understanding (Halpern & Hakel, 2003). Therefore, instructors should assess prior knowledge and understanding at the beginning of class and evaluate progress, as well as any regression to prior knowledge levels. This approach is easily accomplished in a Capstone class by having students submit portions of the written plan throughout the semester, allowing the instructor to have a clear picture of their existing knowledge, ability, and learning progression.

Learner Influenced Learning

Similar to prior knowledge and experience, students' internal beliefs (e.g., self-efficacy) about how they learn and what they are capable of can affect the learning process, especially when the assigned tasks are challenging and require more effort than other learning experiences they might have had. Given the multifaceted nature of Capstone, it is likely that students will experience doubts about their learning capabilities at some point along the way. Instructors teaching Capstone have an opportunity to deliver clear feedback and identify any beliefs that are counterproductive to the learning process through interactive class discussions and periodic submissions of sections of the financial plan throughout the semester.

Experience as a Teacher

Halpern and Hakel (2003) highlighted that experience alone is a poor teacher, often misaligning subjective and objective knowledge. Learners with extensive experience might have erroneous beliefs about mastering a complex topic. This point is salient for graduate programs where the learner is an experienced financial planning practitioner. Professional financial planners often possess specific and in-depth knowledge of issues relevant to their client base; however, they may lack a broad understanding of the topic. Thus, incorporating case studies that push the boundaries of student learning beyond their experience, combined with systematic feedback throughout the case development process, is essential, even for experienced professionals.

Understanding

Understanding is the outcome of an interpretive process driven by active student participation

where the learner is asked to engage, interpret, and interact with the information (Halpern & Hakel, 2003). Based on this definition, traditional lectures, exams, and multiple-choice questions are not the most effective tools for facilitating deep understanding. While many of the underlying classes in a financial planning curriculum might utilize these more traditional methods, Capstone can promote deep learning and understanding as a Pj-PBL class that facilitates this active student engagement, interpretation, and interaction with financial planning knowledge, problems, solutions, and the professional financial planning client context.

Remembering Influences Future Recall

It is essential to recognize that what we ask students to retain through learning and assessment will significantly impact what they recall in the future and what they selectively forget (Halpern & Hakel, 2003). This learning principle is essential to consider when constructing exams and quizzes. For Capstone, this applies to the construction of the client case. It might be tempting to build an elaborate case with nuance and unique circumstances; however, this learning principle would suggest a more basic case that emphasizes synthesis and multiple recall points across the central financial planning topics, which would create a more robust, broader, and flexible knowledge foundation that the learner will carry forward into their professional career.

Less Is More

Building on the prior point, thinking carefully about what students are asked to remember is combined with the notion that less is more in teaching and educating future financial planners. Creating a comprehensive client case that encompasses every technical concept in financial planning is impossible. Therefore, it is essential to consider the goal of Capstone. The CFP Board (n.d.) defined the Capstone course as "a comprehensive financial plan development course created to enhance your knowledge, skills, and abilities" (para. 1). We posit that this definition could be expanded to include a goal to develop a deep understanding of foundational financial planning principles and to synthesize this understanding across financial planning topic areas, resulting in an integrated assessment of knowledge, skills, and abilities. Defining the goal of Capstone is essential to determining the content to include when designing the client case and expectations for student recall and assessment.

What Learners Do

Last, we end with the learner in mind – what they do, they learn. According to Halpern and Hakel (2003), we must carefully consider the tasks and activities we ask students to engage in, as these will directly influence the learning content and quality, as well as the flexibility of this knowledge in future contexts and situations. Halpern and Hakel (2003) emphasized that teaching is less about what the professor does; instead, it is far more important to consider what the learner is asked to do. For Capstone, this is an easy principle to apply as it is heavily focused on learner application within the context of a case study, consistent with Pj-PBL underlying theory. In fact, we posit that there should be very few lectures in a Capstone class and suggest that class sessions focus directly on the case and class discussions. We propose that the Capstone instructor serves in the capacity of a mentor and guide, as in a Pj-PBL course, with a focus on active and student-centered learning.

Research Considerations

Viewing Capstone through a theoretical and practical lens provides insights into how researchers can evaluate course effectiveness in a structured and research-based manner (Research Question 2). Next, we present a preliminary research design framework, along with its key considerations, based on our Pj-PBL theoretical exploration.

Study Type

A research study assessing Capstone outcomes would benefit from a multi-institutional primary data collection effort. CFP Board-registered financial planning programs vary significantly across the U.S. and the globe. It is likely fruitful to identify how and in what ways different perspectives across countries, resources, program structure (e.g., degree level, certificate, modality), college home (e.g., Human Sciences, Business, Ag Econ, etc.), and professional

partnerships (e.g., employer and alum synergy) relate to outcomes of interest. This collective effort also presents an opportunity to establish a multi-institutional dataset to investigate various Capstone approaches and outcomes across time. Significant funding would be needed to facilitate such an effort, and initial research will likely require small pilot studies within institutions as a first step.

Data Type

Capstone generates various learning artifacts that suggest a mixed-methods study type would be applicable and practical, utilizing a combination of quantitative and qualitative data to provide evidence for multiple outcomes of interest, such as knowledge growth by topic area, topic synthesis, self-efficacy, instructor burnout, and professional development. These different data types offer opportunities for various analysis strategies, depending on the sample size (e.g., descriptive statistics, t-tests, multiple regression, structural equation modeling) and time orientation (e.g., cross-sectional, longitudinal).

Sample Characteristics

Capstone is taught in a wide array of formats, levels, and modalities across institutions where the theoretical concepts would likely necessitate different applications. For example, an in-person, synchronous, undergraduate-level class functions very differently from one that is delivered 100% online, asynchronously, and at the graduate level. Therefore, samples would need to be drawn across various course modalities (in-person, synchronous online, asynchronous online) and degree levels (undergraduate and graduate) to account for differences in applied theoretical concepts across various course characteristics.

Measures

Outcomes

Multiple outcomes become relevant when exploring Capstone through a theoretical lens. First, the CFP Board's (2021) Capstone learning outcomes provide a foundational starting point for assessment, covering comprehensive knowledge and understanding, as well as effective oral and written communication.

"Upon completion of this course, the student will be able to:

1. Demonstrate a comprehensive understanding of the content found within the financial planning curriculum and effectively apply and integrate this information in the formulation of a financial plan.

2. Effectively communicate the financial plan, both orally and in writing, including information based on research, peer, colleague or simulated client interaction and/or results emanating from synthesis of material.

3. Analyze personal financial situations that includes both qualitative and quantitative information, evaluating clients' objectives, needs, and values to develop an appropriate strategy within the financial plan.

4. Demonstrate logic and reasoning to identify the strengths and weaknesses of various approaches to a specific problem.

5. Evaluate the impact of economic, political, and regulatory issues with regard to the financial plan.

6. Apply the CFP Board Code of Ethics and Standards of Conduct to the financial planning process."

Beyond course-based knowledge and skill learning outcomes, Pj-PBL theory suggests that it is relevant to consider psychological outcomes for both the instructor and the student. For example, this could include student-centered outcomes such as self-efficacy growth (social cognitive theory), professional identity formation (situated cognition theory), confidence in client interactions and effective classroom-to-career transition (situated cognition theory), problem-solving capability (problem-based learning), ability to navigate group-based problem solving and negotiating conflict in professional relationships (social constructivism). From the instructor's perspective, self-efficacy (social cognitive theory) is an important outcome of interest as the instructor role shifts to that of a facilitator guiding students' problem-solving within the context of ill-structured and authentic problems (problem-based learning), creating intentional ambiguity in the learning environment that activates and develops students' problem-

solving activities and cognitive processes. Likely, the greater the instructor's self-efficacy in assuming a facilitator role, the stronger the student's outcomes and the more satisfied the instructor, which could lead to a stronger sense of meaning and purpose, with less potential for burnout. This example illuminates how theory might introduce more complex research questions and hypotheses. This example illustrates a potential mediation model where a causal path exists from instructor self-efficacy to student outcomes, which in turn influences instructor psychology and retention.

Key Theoretical Indicators

Other potential key theoretical indicators include the quality and impact of group social interactions (social constructivism, social cognitive theory, problem-based learning), quality and type of professional practice synergy (situated cognition theory), learning artifact efficacy (e.g., oral vs. written, client meetings; problem-based learning), and scaffolding for course structure and technology (problem-based learning).

Baseline Variables

Additionally, theory suggests that baseline factors reflecting prior knowledge and experiences are relevant to student and instructor outcomes. For example, constructivism emphasizes the influence of previous knowledge and experiences on active student learning. Similarly, the extent to which instructors incorporate a problem-solving approach into the underlying curriculum will significantly affect the efficacy of the Capstone course structure and learning outcomes (problem-based learning). Furthermore, the instructor's background, qualifications, and practice experience likely contribute to their self-efficacy when engaging in a project-led, problem-based class.

Best Practices

To close, we have identified a set of best practices through a convenience sample of faculty interviews with professors at Arizona State University and Ball State University, each of whom has extensive experience teaching the Capstone course, as well as the authors' own experiences teaching the Capstone course at Texas Tech University. While not intended to be a comprehensive survey, this practice-informed approach highlights strategies that have been applied and deemed anecdotally effective in various financial planning education programs.

Case Study Development

Case studies incorporating a variety of interactive elements encourage students to utilize their critical thinking skills and investigate alternative methods in developing their financial plans. Case studies designed to test students' limits should motivate them to tackle problems from multiple angles, applying both analytical and inventive thinking. To aid students in understanding the case study, the instructor can provide standard financial planning materials that a real-world client would typically use. This includes statements of income, expenses, insurance coverages, assets, liabilities, and previous tax returns. An initial case narrative can also be provided to introduce the students to the client's lifestyle, goals, priorities, and ideal retirement scenario.

To ensure students are prepared for the range of clients they may serve, Capstone courses (in partnership with the underlying curriculum) can expose them to diverse case studies that reflect different lifecycle stages, socioeconomic circumstances, and cultural backgrounds. For example, one case may feature a high-income pre-retired household, another a young professional with student debt, and another a middle-aged family balancing career demands and education funding. By working across multiple client types, students gain experience addressing varied goals, constraints, and planning opportunities. See Appendix A for sample one-page case studies that illustrate how instructors might frame cases to capture different lifecycle and socioeconomic contexts.

Clients often unintentionally leave out material information when working with a financial planner in real-life situations. To simulate real-world scenarios, important details of the case may be omitted. As a result, students need to ask about the data to uncover any additional valuable information related to the client case. Similar to real-life situations, students will not initially be aware of what is missing and will discover it as

they analyze the client's present circumstances. From an instructor's perspective, it is beneficial to convey the learning purpose behind these information gaps so that students can proactively engage in filling them as part of the learning process, rather than viewing the gaps as mistakes needing correction.

Professional Application

Throughout the course, students can replicate professional practice by applying the same processes they will use in their professional careers. Upon the initial introduction of the case study material, students can start the seven-step financial planning process. Students will need to allocate sufficient time to comprehend and evaluate the client's present circumstances and objectives. Completing the initial analysis separately for each major section of financial planning, including cash flow and net worth, education, retirement, investment, insurance, taxes, and estate planning, provides beneficial scaffolding within the course structure. Presenting the case study within the seven-step financial planning process maximizes learning principles within a Pj-PBL structure, where students are introduced to a methodical approach to analyzing and formulating a financial plan from the outset. This approach also keeps financial planning simple for students, so they do not feel overwhelmed by the process and can follow it step-by-step. By breaking down the overall project into smaller tasks as a form of scaffolding, students can build their confidence and ultimately complete a comprehensive financial plan.

After students have submitted summaries of the client's current situation, they can begin generating recommendations to maximize the client's likelihood of achieving their goals. As a scaffolding application, students can submit a written summary of their recommendations, along with justification for each central topic area, and receive instructor feedback to facilitate learning and growth before submitting their final plan. For the final part of the course, students will work to synthesize the current situation and make recommendations to ensure that each component of the financial plan works together effectively. In this phase, they can incorporate feedback from previous scaffolding to process the plan at a deeper level and strengthen the final product. Students will also create an action plan to guide the clients in implementing the financial plan. By following this structured approach, students will not only gain practical experience in financial planning but also develop the necessary skills to address the needs of their future clients effectively.

To enhance professional interactions within a situated context, instructors can incorporate guest speakers, such as retirement specialists, estate planners, or tax experts, to provide students with exposure to practitioner perspectives and specialized areas of financial planning. Professionals could also participate as a reviewer or client for mock client meetings. In the case design phase, professionals can lend their expertise in constructing a case that addresses relevant problems experienced in practice, communicate the case characteristics, and facilitate a discussion of recommendations. The goal of these interactions is to help students connect classroom learning with professional financial planning practice through a situated learning environment.

Collaboration

Financial planning is commonly carried out within group settings, making it beneficial to expose students to group work dynamics. In the Capstone project, forming small groups consisting of two or three individuals facilitates active participation in all aspects of the project while engaging in collaborative efforts. By working together, students can combine their ideas and analyses to develop a comprehensive financial plan. Through active discussions and debates, the group can further refine its plan, ensuring that all aspects of the problem are thoroughly examined and addressed. This approach provides students with practical skills in a simulated group financial planning environment, bringing in the social learning components of Pj-PBL. It's important to note that group work might not be feasible in all settings or modalities. For example, incorporating group work in an asynchronous online class of working professionals from various time zones will be more challenging and likely require a different

implementation strategy than in an in-person cohort-based class. In some cases, group work may not be feasible, and social interaction about the case may require a very different format.

Effective collaboration between the instructor and students also plays a pivotal role in this process. As students submit work periodically throughout the semester, the instructor provides timely feedback to guide them and facilitate their problem solving. Before students proceed with crafting recommendations, instructors can provide feedback to promote student learning and growth in their understanding of the client's current situation. For example, if students have submitted their analysis of the existing retirement planning situation, feedback is provided to help them deepen and strengthen their understanding of the case before developing retirement planning recommendations. This feedback loop ensures that students stay on track and have a solid foundation before progressing to the next stage of the financial planning process, which theoretically builds their self-efficacy as a key outcome.

Software

Integrating software and technology plays a crucial role in financial planning. Students need to have hands-on experience with a range of technological tools to support and gain proficiency in their financial planning development. This experience can involve foundational tools (e.g., Excel) in addition to specialized financial planning software programs, such as eMoney, MoneyGuidePro, and RightCapital.

Furthermore, incorporating specialized financial planning software strengthens the classroom-practice connection, generating a realistic, *situated context*. Students need to familiarize themselves with the functionalities of these programs to navigate through the intricacies of professional financial planning effectively. By leveraging specialized software, students can extend their learning beyond what is possible with basic tools to construct interconnected models reflecting the topic areas (e.g., multi-year cash flow and balance sheet, education funding, estate flowchart, income tax projection, etc.), conduct Monte Carlo simulations, and assess the impact of various recommendations on the overall financial plan. Familiarity with these software tools can enhance students' ability to craft comprehensive and effective financial plans in their future professional endeavors and ease their transition from the classroom to their careers.

Financial Planning Tools

Scaffolding with strategically placed financial planning tools can deepen students' understanding and enhance their ability to demonstrate acquired knowledge. For example, students can derive significant benefits from utilizing templates to initiate their case work, similar to the practice where professionals often employ practical tools to enhance their effectiveness and efficiency, allowing them to begin planning at a much deeper level. For example, a templated Excel sheet may be provided, serving as a valuable tool for organizing client financial information, including cash flow statements, net worth statements, financial ratios, tax projections, and other relevant data. Additionally, having a written financial plan template available can be advantageous, as it allows students to allocate their time and effort toward the content of their final plan rather than being preoccupied with formatting details. This template can provide a clear structure, indicating the specific sections where different components of the plan should be included. By utilizing these scaffolding techniques and learning artifact outputs, students can enhance their understanding of financial planning concepts and improve their ability to create comprehensive financial plans successfully. It's important to note that the type and amount of scaffolding provided through templated material may vary based on prior student experiences and the extent to which the underlying curriculum has already offered that scaffolding to prepare students for a project-led, problem based learning environment.

Role Playing and Simulation

Role playing adds a powerful element to the Capstone course by immersing students in the client-planner relationship. Students can alternate roles as financial planner, client, and observer, practicing essential skills such as communication,

empathy, and presentation. Live or recorded mock client meetings, presentations of financial plan recommendations, and simulated client objections create authentic practice opportunities. Role playing can also be extended by assigning students different client personalities, goals, or communication styles. This variation challenges students to adapt their approach, build rapport in diverse situations, and strengthen their ability to respond to different client needs. Role playing also highlights the importance of professional demeanor and adaptability, competencies that are difficult to teach through lectures alone but are essential for building client trust and rapport. Incorporating professionals in these role-playing activities is another way to enhance the situated context within Capstone.

Example Schedule

Here, we provide an example schedule of how instructors might consider structuring a Capstone class that aligns with the purpose and nature of a Pj-PBL-type course. The schedule is designed with a three-part structure: (a) Part I: Current Situation, (b) Part II: Recommendations, and (c) Part III: The Final Plan – Putting it All Together. The overall schedule flow and rationale for the ordering of topic areas are outlined in the following charts. While neither the current situation nor recommendations are solved in a 100% linear fashion, the current situations are more siloed and linear than recommendations; however, there is some dependency with the retirement and risk management sections due to the need to have a working retirement projection (defined by the Monte Carlo level) before it is clear how the current insurance policies adequately cover the plan. For example, a second home goal modeled under the current situation might be reduced or eliminated in recommendations to achieve a successful outcome based on the client's priority for that goal, which could have a significant impact on the need for life insurance. Creating recommendations involves heavy synthesis and integration across the plan, hence the arrow across all boxes. Overall, flexibility and clear communication from the instructor are essential to manage the parts of the planning process that are fluid and dependent on other areas, while providing feedback and awarding points to help students learn and grow throughout the course.

In terms of structuring the class, the following schedule (see Figure 1 and Table 1) provides an example of a 16-week class based on the flow outlined above. The schedule can easily be adjusted to an eight-week class by combining topic areas that have synergy. This schedule does not account for holidays and periodic class cancellations due to conferences and other activities that are typical within academic calendars. Furthermore, this example schedule illustrates how instructors might frame periodic submissions as optional check-in points for feedback; however, these optional interim submissions are easily converted to required submissions for points if desired. Based on the authors' experience, optional submissions tend to work well when the scaffolding need is lower, and flexibility needs must be maximized. On the other hand, interim submissions for points are effective when points are needed to strengthen scaffolding (i.e., students are more likely to submit) and flexibility needs are a lesser priority.

Figure 1. Course Flow

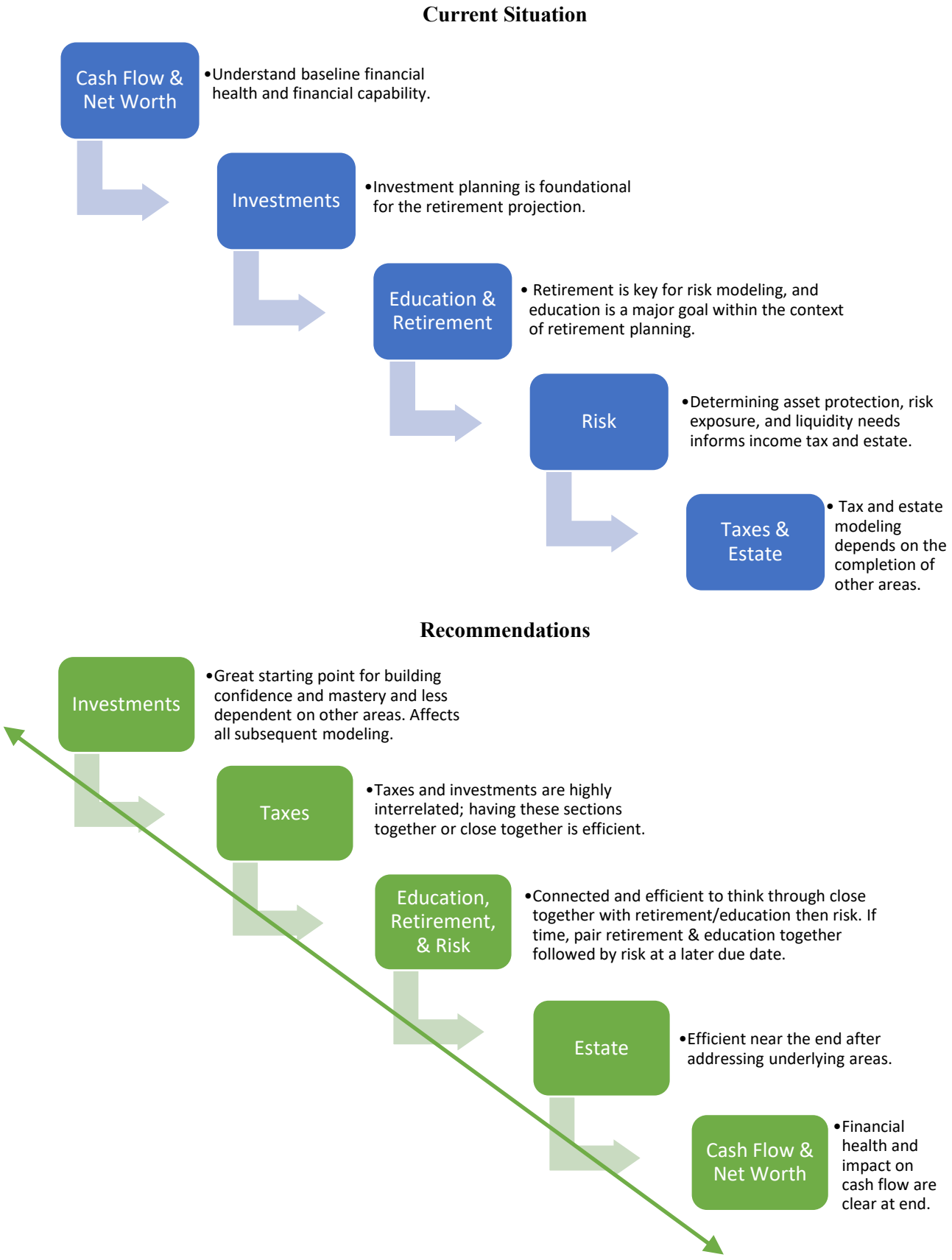

Table 1. Sample Schedule

Dates (Monday-Monday)		**Topic**	**What to Do**	**What To Submit** *Optional*	**What To Submit** *Required*
Module 1: Current Situation					
8/25	9/1	**Course introduction**	**Read:** Syllabus and schedule Client case Ch. 2 (Writing a financial plan) **e-Money:** Certification & Training Videos		
9/1	9/8	**Current situation** *Cash flow & net worth planning*	**Read:** Ch. 6 (Cash flow & net worth)	**Submit written plan for preliminary feedback (no points) by 9/8 @ 11:59 PM** (late not accepted) ☐ Current situation: **Cash flow & net worth planning**	**Submit for course points and grade by 9/8 @ 11:59 PM** ☐ Personal introduction (discussions)
9/8	9/15	**Current situation** *Investments*	Ch. 13 (Investments)	**Submit written plan for preliminary feedback (no points) by 9/15 @ 11:59 PM** (late not accepted) ☐ Current situation: **Investments**	Submit **group names** no later than **9/15 @ 11:59 PM** *(no course points, but groups are locked in from this point forward).*

Table 1 continued on next page.

Table 1 continued.

Dates (Monday-Monday)		**Topic**	**What to Do**	**What To Submit** ***Optional***	**What To Submit** ***Required***
9/15	9/22	**Current situation** *Education* **Current situation** *Retirement*	Ch. 14 (Education) Ch. 15 (Retirement)	**Submit written plan for preliminary feedback (no points) by 9/22 @ 11:59 PM** (late not accepted) ☐ Current situation: **Education** ☐ Current situation: **Retirement**	N/A
9/22	9/29	**Current situation** *Risk*	Ch. 8-12 (Risk - all sections)	**Submit written plan for preliminary feedback (no points) by 9/29 @ 11:59 PM** (late not accepted) ☐ Current situation: **Risk**	
9/29	10/6	**Current situation** *Income tax*	Ch. 7 (Income tax)	**Submit written plan for preliminary feedback (no points) by 10/6 @ 11:59 PM** (late not accepted) ☐ Current Situation: **Income tax**	N/A
10/6	10/13	**Current Situation** *Estate*	Ch. 16 (Estate)	**Submit written plan for preliminary feedback (no points) by 10/13 @ 11:59 PM** (late not accepted) ☐ Current situation: **Estate**	
10/13	10/20	**Current Situation** ○ *Client meeting covering the current situation*	Finalize current situation sections and record client meeting.	**Extra Credit Points! Submit by 10/20 @ 11:59 PM** ☐ ***eMoney fundamentals certification*** – **early** submission for 15 extra credit points!	**Submit for course points and grade by 10/20 @ 11:59 PM** ☐ Client meeting video covering the client's **current situation**

Table 1 continued on next page.

Table 1 continued.

Dates (Monday-Monday)		Topic	What to Do	What To Submit *Optional*	What To Submit *Required*
Module 2: Recommendations (extend current situation work to add recommendations)					
10/20	10/27	**Recommendations** *Investments*	Revisit the book as needed.	**Submit written plan for preliminary feedback (no points) by 10/27 @ 11:59 PM** (late not accepted) ☐ Recommendations: **Investments**	N/A
10/27	11/3	**Recommendations** *Income taxes*	Revisit the book as needed.	**Submit written plan for preliminary feedback (no points) by 11/3 @ 11:59 PM** (late not accepted) ☐ Recommendations: **Income taxes**	N/A
11/3	11/10	**Recommendations** *Education* *Retirement*	Revisit the book as needed.	**Submit written plan for preliminary feedback (no points) by 11/10 @ 11:59 PM** (late not accepted) ☐ Recommendations: **Education** ☐ Recommendations: **Retirement**	
11/10	11/17	**Recommendations** *Risk*		**Submit written plan for preliminary feedback (no points) by 11/17 @ 11:59 PM** (late not accepted) ☐ Recommendations: **Risk**	N/A
11/17	11/24	**Recommendations** *Estate*		**Submit written plan for preliminary feedback (no points) by 11/24 @ 11:59 PM** (late not accepted) ☐ Recommendations: **Estate**	N/A

Table 1 continued on next page.

Table 1 continued.

Dates (Monday-Monday)		Topic	What to Do	What To Submit *Optional*	What To Submit *Required*
Module 3: The Final Plan—Putting it All Together (Current situation + Recommendations + Front summary pages)					
11/24	12/7 (Sunday)	**Putting it All Together** *Current situation + recommendations* *ADD:* ○ *Front summary pages* ○ ***Cash flow & net worth planning recommendations*** ○ *Client meeting covering recommendations*	Revisit the book as needed.	N/A	**Submit for course points and grade by 12/7 @ 11:59 PM** ☐ eMoney certification certificate of completion ☐ Comprehensive written plan ○ All current situation sections ○ All recommendations sections (including cash flow & net worth) ○ All front summary pages
	12/8 (Monday)				**Submit for course points and grade by 12/8 @ 11:59 PM** ☐ The final comprehensive plan recommendations client meeting ☐ Group Peer Evaluations due
12/8 – 12/11		**Teaching team grading**			
12/11		**Final grades due @ noon**			

Conclusion

The Capstone course serves as a central training ground in the educational trajectory of future financial planners, offering a comprehensive and practical learning experience that combines theoretical knowledge with real-world applications. Utilizing cases, facilitating collaboration and professional interactions, and incorporating financial planning software enhance student preparedness to adapt and thrive in the dynamic and constantly changing financial planning profession. This opportunity allows the Capstone class to solidify its position as a foundational bridge, connecting the training gap between theoretical knowledge and practical skills. Through this course, students are exposed to the financial planning environment they'll encounter in their careers, preparing them to confidently transition into their future professional roles, equipped with foundational experiences and skills to excel in the field.

In this paper, we explored the delivery of Capstone through the lens of a project-led problem based (Pj-PBL) approach, considered ways to assess Capstone efficacy through a research process, and introduced relevant learning-based principles, while offering examples of course design, schedule, and application considerations. Rather than claiming to provide a definitive model, our intention is to frame this work as an early-stage contribution in an underexplored area. The goal of this paper is to spark further conversation and research to increase resources for teaching Capstone, specifically addressing the primary gap that needs to be filled to complement the robust resources currently available for the *what* of Capstone. By positioning this paper as a starting point, we aim to encourage ongoing discussion and collaboration among educators, researchers, and professional organizations to strengthen Capstone pedagogy.

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Appendix A

Capstone Case Example: Oscar & Sofia

Client Introduction

Oscar and Sofia are a middle-aged, dual-income household with young children, moderate income, and growing complexity in their financial situation. They are balancing career development, business growth, debt management, and long-term wealth-building goals.

Client Background

Oscar (36) and Sofia (36) have been married for ten years and live in Lubbock, TX, with their three children: Jasmine (8), Marco (5), and Camila (2). Oscar works as an IT administrator at Texas Tech University, earning $65,000 per year with benefits and retirement plans through his employer. Sofia owns a small but growing online retail business with a current income of $50,000; her earnings are expected to grow substantially as the business expands.

Assets and Liabilities

Cash	$30,000 in savings and $5,000 in checking
Home	$300,000 value, mortgage balance approx. $170,000 at 4%
Retirement	Oscar contributes to TTU ORP and 403(b); Sofia has an old 401(k) from a prior employer
Investments	Small brokerage account with individual stocks
Vehicles/Property	Two cars financed at 7%; household property ~$50,000
Debt	$18,000 credit card balance at 23% interest

Insurance and Benefits

Oscar has life, disability, and health insurance through TTU. Sofia currently has no life or disability coverage. The family is covered by TTU's health plan. Property and casualty insurance is in place, but not up to date.

Primary Goals

• Retire together at age 65–67 while maintaining current lifestyle

• Fund 100% of tuition, room and board, and fees for all three children at Texas Tech University

• Pay for $20,000 weddings for each child and provide $10,000 vehicles at age 16

• Upgrade to a $500,000 home within 5–10 years

• Purchase a $100,000 luxury vehicle at retirement

• Travel in retirement ($15,000 annually for 20 years)

• Increase annual charitable giving from $10,000 to $30,000 during retirement

• Leave a legacy of $500,000 to each child and $800,000 to charity ($2.3 million total)

• Eliminate debt by retirement

Appendix A continued on next page.

Appendix A continued.

Planning Considerations

• Manage high-interest credit card debt and evaluate refinancing options

• Explore entity choice and retirement plan opportunities for Sofia's business

• Align investment strategy with differing risk profiles (Oscar 40/100, Sofia 60/100)

• Evaluate education funding strategies (529 plans, TTU tuition benefits)

• Review estate plan; current documents are limited to simple wills

Capstone Mini-Case Example: Alex Rivera (Retirement Stage, Upper-Class, Single Individual)

Alex Rivera is 65 and recently retired after successfully running a specialty toy company that he sold five years ago. He is single, has no dependents, and lives in a luxury condominium in a metropolitan area. Alex accumulated substantial wealth from the sale of his business and his long-term investments; his current net worth exceeds $8 million.

Alex's retirement income is generated through a diversified portfolio that includes taxable accounts, retirement accounts, and real estate investments. His annual income comfortably exceeds his spending needs, allowing him to travel frequently and pursue hobbies such as aviation. While he has Medicare with supplemental insurance, his focus is less on affordability of care and more on ensuring comprehensive coverage and planning for potential long-term care.

Alex's primary financial concerns now center on managing estate taxes, preserving wealth for future charitable bequests, and ensuring his investment portfolio remains aligned with his long-term goals. He has no direct heirs but would like to establish a charitable foundation and leave funds for nieces and nephews.

Student Assignment: Evaluate Alex's wealth management and risk planning strategy in retirement. Consider investment allocation, estate planning tools, and philanthropic strategies appropriate for a high-net-worth retiree with no dependents.

Capstone Mini-Case Example: Daniel and Emily Carter (Accumulation Stage, Lower-Class, Married Couple)

Daniel (52) and Emily (50) Carter are married with three children: Ava (17), who is preparing to start college; Lucas (14), in high school; and Noah (10), in elementary school. Daniel works full-time as a mechanic, earning about $45,000 annually, while Emily works part-time in retail, bringing in an additional $18,000. Their combined household income places them in a lower-class status, and they have little savings set aside.

The Carters rent their home and carry a modest balance of credit card and auto loan debt. They contribute minimally to retirement accounts because most of their income is consumed by daily expenses. With Ava starting college soon, they are worried about how to pay for tuition while still covering household needs and saving for retirement.

Their financial goals include providing some level of support for their children's education, paying down high-interest debt, and building a small emergency fund. Longer-term, they would like to retire in their mid-60s, though they recognize this may be difficult without significant changes to their current financial habits.

Appendix A continued on next page.

Appendix A continued.

Student Assignment: Assess the Carters' competing financial priorities given their limited resources. Recommend strategies for debt reduction, education planning, and beginning a sustainable retirement savings plan, while recognizing the realities of a lower-income household.